

**POLARIZATION MAINTAINING DISPERSION CONTROLLED FIBER  
LASER SOURCE OF ULTRASHORT PULSES**

Abstract of the Disclosure

A modelocked linear fiber laser cavity with enhanced pulse-width control includes concatenated sections of both polarization-maintaining and non-polarization-maintaining fibers. Apodized fiber Bragg gratings and integrated fiber polarizers are included in the cavity to assist in linearly polarizing the output of the cavity. Very short pulses with a large optical bandwidth are obtained by matching the dispersion value of the fiber Bragg grating to the inverse of the dispersion of the intra-cavity fiber.